

# PATENT ABSTRACTS OF JAPAN

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## (54) DATA TRANSMISSION SYSTEM

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To surely transmit data and to improve data transmission efficiency by measuring previously and quantitatively the quality of a radio communication circuit before a data transmission request is received in the mobile radio communication, deciding the optimum data length based on the measured circuit quality and transferring the data in the decided optimum data length when the data transmission request is received.

**SOLUTION:** When a data transmission request is received, the confirmation of the circuit quality is once discontinued and the data are transmitted in the optimum data length. Then a data reception answer is waited. When a normal communication answer (ACK) is received, the transmission of data is completed after the end of transmission of all data is confirmed. If an abnormal communication answer (NAK) is received, it's decided that the ambient environment is changed by the movement. Then the transmitting data are divided into two pieces and then transmitted. In an ACK mode, the communication of all data is over. In an NAK mode, however, the radio circuit state is confirmed again. Then the abnormal end of data transmission is decided and notified to an operator if a communication unable state is confirmed. In a communication enable state, the data are transmitted again in the optimum data length.